CIVIL AIR PATROL

NATIONAL FLIGHT ACADEMY-GLIDER

FLIGHT TRAINING SYLLABUS

NORTHEAST REGION, CIVIL AIR PATROL

VERSION 4.0 - March 2018

CONTENTS

1 COURSE DESCRIPTION

1.1 TITLE

Civil Air Patrol Flight Academy – Glider

1.2 OBJECTIVE

The CAP Glider Flight Academies are designed to further the CAP missions of both Aerospace Education and Cadet Programs. Through the medium of basic to advanced sailplane flight instruction, cadets will develop self-confidence, task and self-discipline, and fundamental leadership skills while progressing their aeronautical knowledge and skills on the path to a private glider license.

1.3 DURATION

The standard CAP Glider Flight Academy is nine (9) days in length. Cadets should expect to fly at least seven (7) days of that period, weather permitting. (Note: cadets traveling from long distances may require additional travel days).

1.4 PREREQUISITES

1.4.1 Age

All participants must have reached their 14th birthday prior to the start of the activity.

1.4.2 Experience

All participants must have completed and received credit for attendance at a CAP encampment prior to a flight academy. Prior to attending a NFA, students must have successfully completed at least one powered *or* glider Orientation ride.

1.4.3 Coursework

Prior to reporting at a CAP Nation Flight Academy (NFA), students are required to complete the following items.

1.4.3.1 Online Courses

1. SSA (Soaring Society of America) Wing-Runner Course
   http://www.soaringsafety.org/learning/wingrunner/wingrunner.html
2. Ground Handling
   https://www.capnhq.gov/CAP.LMS.Web/Course/course_start.aspx?c=32
3. Basic Risk Management
   https://www.capnhq.gov/SafetyEducation/ORM_Basic_Course.pps
4. AOPA “Know Before You Go”
   https://www.aopa.org/training-and-safety/online-learning/online-courses/
5. AOPA “Weather Wise: Air Masses and Fronts”
   https://flash.aopa.org/asf/wxwise_fronts/wxwise_fronts.cfm
6. AOPA “Do The Right Thing: Decision Making for Pilots”
   https://www.aopa.org/training-and-safety/online-learning/safety-advisors-and-safety-briefs/do-the-right-thing

1.4.3.2 Primary Course Text

The primary course text for the CAP NFA-Glider will be the *Glider Flight Training Manual* by Thomas Knauff. This text will be provided to all students prior to the academy, with the expectation that all students will review the text prior to reporting to an academy.

1.4.3.3 Additional Course Text

In addition to the Knauff text, students are encouraged to reference FAA Handbook 8083-13A, *Glider Flying Handbook*. This text is required and provided for second year students, and highly recommended for all students. An online version can be found at https://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/glider_handbook/media/faa-h-8083-13a.pdf

1.5 ENROLLMENT

Interested cadets should apply to CAP NFAs through the National Cadet Special Activity (NCSA) Homepage at https://www.gocivilairpatrol.com/programs/cadets/activities/national-cadet-special-activities/ before 15 January of the year they plan to attend an academy.

1.6 COURSE COMPLETION

Cadets will graduate and receive a NCSA participation ribbon if they complete 80% of the coursework and participate at a level commensurate with 80% of the program activities. Except for illness or incapacity, students are expected to participate and complete course work at the 100% level. The goal of first year students is the successful accomplishment of the Pre-Solo flight. The goal of second year students is solo flight, though there should be no expectation for second year students to solo. Both pre-solo and solo are achieved solely on the basis of student proficiency in meeting FAA and CAP course training standards (CTS).

1.7 STATUS UPON GRADUATION

1.7.1 Cadet Pre-Solo Award

The Pre-Solo Wings are a CAP award and not a qualification. This award may only be earned at a Wing or higher-level NFA or Encampment, and may be awarded provided that:

1.7.1.1 The student has received the required instruction from a CAP Instructor Pilot (IP), and has a written record documenting instruction of all items of FAR (Federal Aviation Regulations) 61.87 in the appropriate aircraft.

1.7.1.2 The student has completed a pre-solo qualification flight. A pre-solo qualification flight is a flight performed at a CAP flight academy during which the CAP student pilot demonstrates to an onboard CAP IP that the student pilot has the ability to fly the aircraft without assistance from the on-board CAP IP. This flight does not require an FAA endorsement and does not fulfill FAA requirements for solo flight; however, the prerequisite for a pre-solo qualification is completion of all requirements in the appropriate portion of FAR 61.87.

1.7.2 Cadet Solo Award

The cadet Solo Wings are awarded following the successful solo flight by a CAP member. Requirements for solo are found in FAR Part 61.87. In addition, CAPR 70-1 para 4.1.1 required that in order to operate as a CAP Solo Pilot, the member must possess a current student or rated pilot certificate, with appropriate solo endorsements from a CAP IP for the make and model aircraft flown.

1.8 COURSE HOURS

The CAP NFA-Glider syllabus consists of approximately 20.5 Hours of ground instruction, to include both classroom and flight line instruction. Suggested course hours are listed by subject area and planned timeline in Table 1 below. Highlighted topics are required instructional areas per FAR 61.87.

CAP NFA Glider Ground School Schedule

DAY	DAY	Home work	Tests	Formal Ground Training	Location	Time	Instructor
0		Online Courses		Wing Runner	Online	0.75	Online
		Prior to Reporting		Operational Risk Management – Basic (ORM Basic)	Online	0.75	Online
				Ground Handling	Online	0.75	Online
				Basic Safety	Online	0.75	Online
				Introduction to Safety	Online	0.75	Online
				AOPA ASF Know Before You Go: Navigating Today's Airspace	Online	1	Online
				AOPA ASF Weather Wise: Air Masses and Fronts	Online	1	Online
				AOPA ASF Do The Right Thing: Decision Making for Pilots	Online	1	Online
1	SAT	HW while waiting	None	Encampment Glider Launch Procedures/Staging	Flt Line	1.5	
				Inspection of towline rigging and review of signals	Flt Line	0.5	
				Procedures for disassembly and assembly of the glider	Flt Line	2	
2	SUN	Traffic Pattern	Quiz 1	Review of Quiz one	CFI TBD	0.2	
				Flight Characteristics and Operational Limitations*	Class	1	
				Preflight Planning&preparation procedures+Systems*	Class	1	
				Collision, windshear, and wake turbulence avoidance*	Class	0.5	
				Preflight & Postflight Ground Instruction/Student	Flt Line	0.75	
3	MON	Airspace/Charts	Quiz 2	Review of Quiz 2	CFI TBD	0.3	
				Airspace Rules and Procedures for local Airspace	Class	1	
				Airport Traffic Patterns inc Entry Procedures	Class	1	
				Preflight & Postflight Ground Instruction/Student	Flt Line	0.75	
4	TUE		Quiz 3	Review of Quiz 3&4	CFI TBD	0.5	
			Quiz 4	Applicable Sections of Parts 61 and 91*(2 ppts)	Class	1.5	
				Preflight & Postflight Ground Instruction/Student	Flt Line	0.75	
5	WED		Quiz 5	Review of Quiz 5&6	CFI TBD	0.5	
			Quiz 6	Preflight & Postflight Ground Instruction/Student	Flt Line	0.75	
				Emergency procedures and equipment malfunctions*	Class	1.25	
6	THUR	Pre Solo Written		Preflight & Postflight Ground Instruction/Student	Flt Line	0.75	
				Pre Solo Pre Solo Written Test review			
7	FRI	Pre Solo Paperwork	None	Pre Solo Pre Solo Written Test review	CFI TBD	1.25	
				Preflight & Postflight Ground Instruction/Student	Flt Line	0.75	
8	SAT	Pre Solo Paperwork	None	Preflight & Postflight Ground Instruction/Student	Flt Line	0.75	
				Pre Solo Briefing including FAA & CAP paperwork Review	CFI TBD	1.25	CHIEF CFI
9	SUN	None	None	None--Graduation and final solo opportunity			
*	powerpoint presentation available for class			**TOTAL GROUND INSTRUCTION**		**20.5**	**Hours**
				All 61.87 required Instruction			

Table 1 CAP Ground Instruction Schedule

2 COURSE ADMINISTRATION

2.1 TRAINING MANAGEMENT

2.1.1 Syllabus Use

This syllabus outlines the desired sortie flow and specific requirements for CAP NFA-Glider training. Qualified-glider IPs shall conduct all ground and flying training.

2.1.2 Records

All training record entries must be factual, objective, concise, legible and signed (or initialed) by the writer.

For documentation of quantifiable student progress, the use of the CAP NFA-Glider grade card is required following each instructional flight. When flying multiple flights in a row, the IP may opt to delay grading until after the second flight but should not delay completing the grades beyond the second sortie. This process is to ensure IPs have a fresh recollection of student performance for each maneuver performed on that flight.

Following daily training, documentation of all flight activities shall be accomplished in the student logbook. As a minimum, the IP should detail the elapsed flight time, location, aircraft used, maneuvers performed, and IP license information. Quantitative or performance-based statements are not required nor recommended in logbook entries.

2.1.3 Training Requirements and Restrictions

2.1.3.1 Daily Mass Briefings — Before each flying period, students attend a mass briefing to include current and forecast weather, operational notes, simulated emergency procedures (EPs) and special emphasis items. Students not present for the mass briefing shall receive a briefing from the Director of Operations or Chief IP prior to flying.

2.1.3.2 Emergency Procedures Training —Emergency situation scenarios will be presented to the students each morning in the mass briefing to review procedures and utilize scenario-based training. IPs will pre-brief simulated EPs with their students prior to practicing in the air. IPs will review a simulated EP scenario related to the lesson either before, during, or after each flight.

2.1.3.3 Flying Safety — Emphasize flying safety, risk management, emergency procedures, proper air discipline, and good judgment throughout all training. Discuss topics relating to safety that promote good judgment and safe practices.

2.1.3.4 Maneuver Demonstrations — IPs shall demonstrate maneuvers before allowing students to practice them. Exceptions are allowed only when training from a previous sortie or another media provides adequate and direct transfer to the maneuver being performed.

2.1.4 Instructor Pilot Responsibilities

2.1.4.1 Emphasize safety, correct emergency procedures, air discipline and sound judgment during training.

2.1.4.2 Execute syllabus faithfully to ensure students receive full and appropriate instruction on all key areas listed in Table 1 and FAR par 61.87.

2.1.4.3 Conduct ground training, both in the classroom and on the flight line as appropriate.

2.1.4.4 Before each training flight, the IP briefs the student on the specific objectives of the sortie. After each flight, the IP critiques and grades the student, discusses ground training items, and assigns study areas for the next lesson. IPs may fly two consecutive sorties with the same student before filling out the grade card, provided highlights from the first sortie are verbally debriefed before the second sortie (e.g. On PT3 rope breaks, where it's more effective to do a 500 ft. PT3 and then a 200 ft. PT3 without changing students).

2.1.4.5 The IP ensures the student is familiar with mission profiles and local procedures. IPs should expose students to a wide variety of profiles and procedures during flight training.

2.1.4.6 Cockpit / Crew Resource Management (CRM) — Integrate CRM skills into flight briefings and debriefings: Topics should include:

(1) Mission Planning / Briefing / Debriefing
(2) Communication
(3) Crew Coordination
(4) Risk Management / Decision Making
(5) Situational Awareness
(6) Task Management

2.1.4.7 Use the chain of command to keep the Program Director and Chief Instructor informed of any deficiency (grounding, performance, etc.) that could affect a student's training progress or ability to complete the program.

2.1.4.8 When a cadet meets the prerequisites to solo, the IP shall ensure the student meets or exceeds the requirements of FAR 61.87 and reviews the grade card to ensure all requirements are met, all briefings completed, and required signatures annotated for compliance with CAP Policies.

2.1.5 Student Responsibilities

2.1.5.1 Students are expected to attend all training. If circumstances preclude a student's attendance, the student notifies the Cadet Commander and requests to be excused prior.

2.1.5.2 Students shall prepare for the NFA-Glider by completing the training listed in section 1.4.3 of this document prior to arrival. Students will not begin participation in the activity until prerequisite material is complete.

2.1.5.3 Students will prepare for their flights by studying the course sexts, as well as reviewing their daily performance with their IPs.

2.1.5.4 Students shall behave in a professional, respectful manner at all times while participating in the academy, and adhere to all CAP standards, customs and courtesies.

2.1.6 Maneuver Continuity

Each maneuver (except special syllabus items) should be accomplished at least once every four sorties. *(Exception: Area maneuvers should be accomplished every four area sorties.).*

2.2 TRAINING DOCUMENTATION MANAGEMENT

2.2.1 General

Documentation for student flight and ground training shall be accomplished both on the student grade-card, as well as in the student FAA logbook (as appropriate).

2.2.2 Registration and Participation Data

Daily flight record logs will be entered on the IP/student's behalf by the support staff into the CAP WMIRS database. Activity directors shall verify all students have current membership, application fee paid, CAP Form 31 signed by cadet and parents, and the academy questionnaire. Solo students must also have a signed Statement of Understanding (SOU) and complete the CAPF-5 questionnaire in the aircraft utilized.

2.3 GRADING PROCEDURES

2.3.1 General

This section details the grading procedures on the CAP NFA-Glider grade card. As soon as practical following the completion of a fight, the IP shall debrief and grade the student using the grading scales below.

2.3.2 Assessing Student Performance

The goal of the grading process is to provide a quantifiable record of a student's performance on specific maneuvers on each flight, not to assign a pass/fail mark or identify failures of the students. It is therefore vital that IPs provide measurable feedback by identifying both areas of strong proficiency and areas needing additional attention when completing the grade card.

2.3.3 Absolute Grading Scale

When measuring individual maneuver performance, IPs shall judge the student's maneuver performance against the course training standards (CTS) in this syllabus. Maneuvers should be graded on the student's characteristic performance and should not consider the student's type and amount of training.

Maneuver Grade	Symbol	Description
Demonstration	**D**	The Instructor Demonstrates the maneuver, but the student does not attempt
Unsatisfactory (Optional)	U	The student lacks sufficient knowledge, skill, or ability to perform the operation without instructor intervention for safety of flight
Practiced	**P**	The Student practiced the maneuver in a safe manner, but not to a level required to satisfy FAR 61.87
Solo	**S**	The student performed the task/maneuver to a level of proficiency that the instructor believes is appropriate to satisfy FAR 61.87
Excellent (Optional)	E	The Student has performed to the task to the FAA Private Glider Practical Test Standard

For each maneuver and task performed during the flight, the IP shall assign one of the above grades. If IPs do not feel comfortable assigning grades on the full 5-point scale (D-U-P-S-E), they may opt to only use the simplified, more subjective 3-point scale described in the Course Text (D-P-S).

2.4 COURSE TRAINING STANDARDS

2.4.1 Purpose

These standards outline the general tasks required of graduates of this syllabus. Students should aim to accomplish all tasks as specified.

2.4.2 General Proficiency Standards

2.4.2.1 The Course training standards equate directly to a grading scale of "Excellent." This level of proficiency may or may not be required by the IP to make a determination as to a student's ability to solo IAW FAR 61.87.

2.4.2.2 The grade of "Solo" is subjective to the IP evaluating the task IAW FAR 61.87 but should be measured off of the CTS criteria for consistency across IPs.

2.4.2.3 Accomplish training standards for all maneuvers in conjunction with good safety practices (i.e. clearing, situational awareness, etc.). Effective clearing is an integral part of all maneuvers.

2.4.2.4 Aircraft control must be smooth and positive. Momentary deviations are acceptable if corrections are timely and flight safety is not compromised.

2.4.2.5 Consider the thermal effects and other weather conditions when assigning grades, however, exceeding aircraft tolerances, even momentarily, is unacceptable.

2.4.2.6 Procedural knowledge must be in accordance with applicable directives and allow the sortie to be accomplished effectively.

2.4.2.7 Unless otherwise noted, all area maneuvers begin at approximately the no-wind best L/D pitch picture.

2.4.3 Tasks

The table below lists the standard manner in which each required glider task or maneuver should be performed to achieve a grade of "Excellent". Listed with the maneuvers are also the references to the FAA practical test standard and course texts for specific discussion on the tasks/maneuvers.

TASKS	61.87 (S)	PTS (E)	Knauff (REF A)	FAA-HBK-8083-13A (REF B)	GRADING CRITERIA
PRE-FLIGHT PLANNING	1	I,II	p.50-53	p.6-6	Performs pre-flight inspection using a checklist and can perform a positive control check. Can calculate weight and balance, understands IMSAFE check before flying.
GROUND HANDLING	2,11	II B	p.49	p.6-4/6-5	Handles the glider in a manner that will not result in damage, properly secures controls while moving glider, uses appropriate number of people to move the glider
TAKEOFF – NORMAL	3	IV B	p.56	p.7-3	Established Course of actions, completes prescribed checklist, uses proper signals for takeoff, lifts off at an appropriate airspeed, maintains directional control and proper position and alignment behind the tow plane until the tow plane lifts off.
AEROTOW	12	IV C	p.62	p.7-6	Makes smooth and correct control applications to maintain vertical and lateral positions during high (slightly above the wake) and low (slightly below the wake) tow, maintains tow position during turns. Maintains Tow plane wheels on the Horizon.
SLACK LINE	N/A	IV D	p.87-88	p.7.9	Understands elements related to the causes, hazards, and corrections related to slack lines, recognizes slack line and applies immediate, positive, and smooth corrective action to eliminate slack line in various situations
TOW RELEASE	N/A	IV F	p.66	p.7-8	Maintains High tow position and normal tow line tension, clears the area before releasing, observes the towline to confirm release, makes a coordinated level release and immediate turn away from tow plane.
STRAIGHT GLIDES	15	VII A	p.25-28	p.7-27	Tracks toward a specific landmark at a given airspeed, demonstrates effective use of flaps, spoilers, or dive brakes in relation to pitch, maintains heading ±10 degrees and specified airspeed ±10 knots
TURNS - HEADING/360/720	4.15	VII B	p.44-47	p.7-28	Enters and maintains an appropriate rate of turn with smooth, proper, and coordinated control applications, maintains desired airspeed ±10 knots and rolls out on specified heading ±10 degrees

TASKS	61.87 (S)	PTS (E)	Knauff (REF A)	FAA-HBK-8083-13A (REF B)	GRADING CRITERIA
STEEP TURNS	N/A	VII C	p.44-47	p.7-31	Understands elements related to steep turns, including load factor, effect on stall speed, and overbanking tendency, establishes the recommended entry airspeed, maintains 45-degree bank ±5 degrees and desired airspeed ±10 kts, recovers with smooth and coordinated control ±10 degrees of desired heading
MIN CONTROLLABLE AIRSPEED	N/A	IX A	p.81	p.7-31	Establishes and maintains airspeed at which and further increase in AoA or configuration would result in a stall, adjusts airspeed to avoid stalls in turbulent air or as bank increases, applies smooth, coordinated control inputs, maintains heading ±10 degrees and desired bank angle ±10 degrees during turns
FORWARD STALL	14	IX B	p.68	p.7-32 to 34	Understands elements related to stall and recovery and the hazards of stalling during uncoordinated flight, selects entry altitude that will allow maneuver to be completed no lower than 1500 ft. AGL, establishes and maintains pitch attitude that will result in a stall during straight flight, maintains bank angle of up to 15 degrees, recovers using smooth and coordinated control applications throughout
TURNING STALL	14	IX B	p.76	p.7-34	Understands elements related to stall and recovery and the hazards of stalling during uncoordinated flight, selects entry altitude that will allow maneuver to be completed no lower than 1500 ft. AGL, establishes and maintains pitch attitude that will result in a stall during turning flight, maintains bank angle of up to 15 degrees ±10 degrees, recovers using smooth and coordinated control applications throughout
TRAFFIC PATTERN	5	III B	p.89-93	p.7-22,7-23	Follows established traffic pattern procedures, maintains awareness of other traffic in pattern, maintains proper ground track with crosswind corrections, adjusts glidepath and track promptly to compensate for lift, sink, or turbulence in the pattern to cross designated points at appropriate altitudes, make smooth, coordinated turns with no greater than 45 degrees of bank, adjusts flaps, spoilers or dive brakes as appropriate, completes prescribed checklist

TASKS	61.87 (S)	PTS (E)	Knauff (REF A)	FAA-HBK-8083-13A (REF B)	GRADING CRITERIA
NORMAL LANDING	16	IV Q	p.94-116	p.7-22,7-23	Adjusts flaps, spoilers or dive brakes as appropriate, maintains approach speed +10/-5 kts, makes smooth, timely, and positive control application during round-out and touchdown, touches down smoothly within designated landing area with no appreciable drift, with the longitudinal axis aligned with the desired landing path. maintains control during the after-landing roll
POST FLIGHT PROCEEDURES	N/A	XI	N/A	p.6-4	Understands local parking procedures and selects a suitable parking area considering wind, traffic, and nearby persons or property, taxis to parking area, secures glider properly, completes post flight inspection and completes prescribed checklist
CHECKLIST USAGE	N/A	Intro, IV A/Q	p.159,171	p.6-7,6-8	Follows prescribed checklists when appropriate, demonstrates division of attention and proper visual scanning when using checklist. Recall and perform Pre-Takeoff and Pre-landing checklists from memory.
CRM/SRM	N/A	Intro	N/A	N/A	Effectively uses all available resources (human and other) during tasks to operate safely
AERO DECISION MAKING	N/A	Intro	N/A	p.13-9 to 10	Assess critical factors affecting decision making using PAVE Model - Pilot, Aircraft, enVironment, External Pressures, uses analysis to drive decisions
RADIO COMMUNICATIONS	N/A	III A	N/A	N/A	Selects appropriate frequencies to be used, transmits using recommended phraseology, acknowledges radio communications and complies with instructions, uses appropriate procedures for simulated radio communication failure
COLLISION AVOIDANCE	6	N/A	p.41	p.197	Scans for traffic>90 deg in direction of turn, before turnings additionally performs clearing turns, 2 90deg, or 1x 180deg turns scanning for traffic prior to Airwork maneuvers
EMERGENCY PROCEDURES	9	N/A	p.259-	p.8-2	Maintain aircraft control, analyze the situation and take proper action, land as soon as conditions permit/--Attitude, Airspeed, Decision
CROSSWIND T/O AND LANDING	3,16	IV B, IV Q	p.59, pg. 129-131	p.7-5, 7-25, 7-26	maintains proper wind-drift and crosswind correction, and directional control

TASKS	61.87 (S)	PTS (E)	Knauff (REF A)	FAA-HBK-8083-13A (REF B)	GRADING CRITERIA
DOWNWIND LANDING	N/A	IV S	p.262-263	p.7-27	Adjusts flaps, spoilers or dive brakes as appropriate, maintains approach speed ±5 kts, maintains proper directional control during touchdown and roll-out, applies brake smoothly to bring glider to a stop
THERMALLING	18	VA A	p.83-87	p.10-5 to10-10	Recognizes presence of a thermal, determines direction to turn, exhibits coordinated control and planning when entering and maneuvering to remain in the thermal, applies correct technique to re-enter if lift is lost, remains oriented to ground references, wind, and other aircraft, maintains airspeed
BOXING THE WAKE	N/A	IV E	p.169-170	p.7-10	Maneuvers the glider, while on tow, slightly outside the tow planes wake in a rectangular, box-like pattern, maintains proper control and coordination. Box Pattern will start from the Center Low Tow position, and move to the left in a clockwise rotation around the wake.
PT3 - NOTE TYPE ON BACK	19	IV G	p.117-125	p.8-10	Exhibits knowledge of aero tow abnormal occurrences, such as tow plane power loss, towline break, or tow/glider release failure, demonstrates simulated PT3 occurrences (400 ft. for first year, 200 and 500 ft. for Pre-solo)
UNASSISTED TAKEOFF				p 7-3	Stick full deflection to raise lowered wing, Brief tow pilot, PIC calls take up slack and takeoff with go, go, go
SIM OFF-FIELD LANDING	N/A	X A	p.248-258	p.8-18	Determines suitable landing area and demonstrates procedures to accomplish an off-airport landing
ASSEMBLY AND DISASSEMBLY	13	II A	N/A	p.6-2	Selects suitable assembly/disassembly area, follows appropriate checklist, uses proper tools, handles components properly, cleans and lubricates parts, performs post-assembly checklist, including positive control check
PERFORMANCE AIRSPEEDS	8	V A&B	p.206	p.7-36-38	Determines minimum sink airspeed for a given situation and maintains selected speed ±5 kts and desired heading and bank angle ±10 degrees during turns, determines speed to fly for performance between thermals and maintains ±5 knots
SPIN/SPIRAL DIVE RECOVERY	15,19	Intro	p.44-47	p.7-28	Recognizes and understands difference between spins and spiral dives, can describe procedures for Spin and spiral dive recovery

3 ACADEMIC AND GROUND TRAINING

3.1 ACADEMIC TRAINING

3.1.1 Course Text and Quizzes

The Knauff text incorporates the topics necessary for successful learning through first solo into six lesson sections, with each section concluding with a Quiz. Students are expected to have read the course text prior to arrival at the academy, and be prepared to complete Quiz 1-6 within the first 5 days of classroom instruction. All incorrect quiz answers will be corrected to 100% by the IPs, to ensure students fully understand

3.1.2 14 CFR 61.87 Required Lessons

Classroom instruction shall include the following topics of instruction required by 14 CFR 61.87

A. Flight Characteristics and Operational Limitations
B. Pre-flight Planning and Preparation
C. Aircraft Procedures and Systems
D. Collision, Wind shear, and Wake Turbulence Avoidance
E. Airspace Rules and Procedures (Especially local field)
F. Airport Traffic Patterns and Entry Procedures
G. Applicable Sections of FAR Part 61 and 91
H. Emergency Procedures and Equipment Malfunctions

3.2 GROUND TRAINING

Prior to Phase 3, (See Section 4, Flight Training) students must complete and have an IP or ground instructor sign off for the following areas:

A. Wing Runner Checkout
B. Rope Running Checkout
C. Glider Assembly/Disassembly
D. SSA Ground Signals
E. Aircraft Ground Handling

4 FLIGHT TRAINING

4.1 GROUND BRIEFING

Prior to each glider flight or series of flights, the IP briefs the student according to local guidance. The IP or Pilot in Command ensures the entire crew understands and has discussed the following:

A. Crew rest status
B. Flight objectives
C. Medical status
D. Transfer of aircraft control
E. Risk Management for the flight

4.2 PHASE 1

In the Phase 1 block of instruction, the IP should focus on demonstration and student performance of flight controls and functions, Angle of Attack, shallow turns, use of trim, adverse yaw, drag, speed control, Checklist usage, and Collision avoidance. **Specific ground discussion topics in this block should at a minimum include Aircraft control and Trim, and Coordinated Turns.**

4.3 PHASE 2

In the Phase 2 block of instruction, students focus on ground handling, aerotow, medium and steep turns, instructor-aided landings, Min controllable airspeed, reduced-G, forward stalls. **Ground Instruction topics should include a minimum of Aerotow concepts and Landing techniques.**

4.4 PHASE 3

In the Phase 3 block of instruction, the students are introduced to takeoff, show proficiency in aerotow, begin thermalling, TLAR patterns, turning stalls, wake turbulence, flight manuals, and should begin having critical phase of flight checklists memorized. **Ground instruction topics should include TLAR Patterns, Takeoff, Stalls, Unusual Patterns, Premature Termination of The Tow (PT3), Radio communications, and off-field landings.**

4.5 PHASE 4

The Phase 4 block of instruction is designed to prepare the students for more advanced conditions and situations, and includes focus areas of Cross-wind takeoff, Aerotow, 360/720's, stalls, TLAR patterns, equipment malfunctions, PT3s, slack line recovery, Slips, high-drag configurations. **Ground instruction should include discussions of Slips, Equipment Malfunctions, and SSA in-flight signals.**

4.6 PRE-SOLO

When a student is performing a “Pre-Solo” flight (or Phase Check for 2nd year students), the student is expected to be completing all elements of flight without IP involvement or interventions. Instruction topics should focus on demonstration of safe aircraft control, student-led in-flight decision making and communication w/o IP inputs.

4.7 SOLO

For a student to solo in a Glider, the following other criteria must be met in order for a student to solo:

A. 14 CFR Part 61.87 Requirements Met (All 19 Tasks) and IP Logbook endorsement for Solo
B. 14 CFR Part 61.31 Aerotow Launch Method Training Logbook endorsement by IP
C. 14 CFR Part 61.87 B1 Pre-Solo Test corrected to 100% and Logbook endorsement by IP
D. Minimum of 30 instructional glider sorties and Second Academy
E. Phase Check Completed with Chief CFI-G or Designee
F. FAA Student Pilot Certificate uploaded to e-services
G. Government ID IAW 14 CFR 61.3
H. CAP Statement of Understanding & Solo Training Data Submitted and checked in e-services
I. CAPF5Q Glider questionnaire completed and uploaded to e-services
J. Solo sortie may not be more than the 5th of the day
K. Winds <15kts (10kts cross), Ceilings >2500 AGL, Visibility >5 mi
L. Ground briefing w/ IP on Weather, Conditions and Flight Plan
M. Student Completed IMSAFE Analysis/Discussion with IP